

CLAIMS

1. A method for evaluating elimination of microorganisms, comprising supplying microorganisms in the space inside a container, allowing particles with positive ions for a sterilizing treatment of microorganisms and particles with negative ions for a sterilizing treatment of microorganisms to simultaneously irradiate the microorganisms, sampling the microorganisms, and measuring the sampled microorganisms after the irradiation of the particles.

2. A method for evaluating elimination of microorganisms, comprising supplying viruses as microorganisms in the space inside a container, allowing particles for the sterilizing treatment of microorganisms to irradiate the microorganisms, sampling the microorganisms, and measuring the sampled microorganisms after the irradiation of the particles.

3. The method for evaluating elimination of microorganisms according to claim 1 or 2, comprising measuring the microorganisms after the irradiation of the particles, supplying microorganisms under the same conditions for the sterilizing treatment with the irradiation of the particles to get the microorganisms subjected to spontaneous decay without irradiation of the particles, sampling the microorganisms, and measuring the sampled microorganisms.

4. The method for evaluating elimination of microorganisms according to claim 1 or 2, wherein measuring the microorganisms is done by measuring the concentration or activity of the microorganisms.

5. The method for evaluating elimination of microorganisms according to claim 1 or 2, wherein measuring the timewise change of the

measured microorganisms in an irradiation time period of the particles is also done.

6. The method for evaluating elimination of microorganisms according to claim 1 or 2, wherein measuring the dependency of the elimination performance on the particles concentration is also done.

7. The method for evaluating elimination of microorganisms according to claim 1 or 2, wherein a solution of microorganisms in dispersion is sprayed in a mist form during the supply of microorganisms in the space inside the container.

8. The method for evaluating elimination of microorganisms according to claim 1 or 2, wherein the microorganisms can be measured by using cell culture due to the microorganisms, hemagglutination induced by the microorganisms, or allergic reaction induced by the microorganisms.

9. The method for evaluating elimination of microorganisms according to claim 2, wherein the particles for the sterilizing treatment of microorganisms are particles generated by any of atmospheric electric discharge, atmospheric irradiation of radiation, and the Lenard effect.

10. The method for evaluating elimination of microorganisms according to claim 2, wherein the particles for the sterilizing treatment of microorganisms are any of radiation, X ray, gamma ray or electromagnetic wave.

11. The method for evaluating elimination of microorganisms according to claim 2, wherein the particles for the sterilizing treatment of microorganisms are particles of chemicals.

12. The method for evaluating elimination of microorganisms

according to claim 1, wherein the microorganisms are a combination of one or more members selected from the group consisting of bacteria, mycete, viruses and allergens.

13. The method for evaluating elimination of microorganisms according to claim 1 or 2, wherein stirring the space inside the container from a position lower the supplied microorganisms inside the container is done.

14. An apparatus for evaluating elimination of microorganisms, comprising a container for supplying microorganisms in the space inside the container and carrying out the sterilizing treatment of microorganisms, a microorganism supply means for supplying microorganisms in the space inside the container, a microorganism elimination means for supplying particles with positive ions for a sterilizing treatment of microorganisms and particles with negative ions for a sterilizing treatment of microorganisms simultaneously in the space inside the container, a microorganism sampling means for sampling the microorganisms after the sterilizing treatment of microorganisms by the microorganisms elimination means, wherein measuring and evaluating the microorganisms sampled by the microorganism sampling means are done.

15. An apparatus for evaluating elimination of microorganisms, comprising a container for supplying viruses as microorganisms in the space inside the container and carrying out the sterilizing treatment of microorganisms, a microorganism supply means for supplying microorganisms in the space inside the container, a microorganism elimination means for supplying particles for the sterilizing treatment of

microorganisms in the space inside the container, and a microorganism sampling means for sampling the microorganisms after the sterilizing treatment of microorganisms by the means of elimination of microorganisms, wherein measuring and evaluating the microorganisms sampled with the microorganism sampling means are done.

16. The apparatus for evaluating elimination of microorganisms according to claim 14 or 15, wherein the microorganism supply means, the microorganism elimination means and the microorganism sampling means are sequentially arranged on the passage of the air containing microorganisms from the upstream side toward the downstream side thereof.

17. The apparatus for evaluating elimination of microorganisms according to claim 14 or 15, wherein a wind tunnel forming a passage of the air containing microorganisms is interposed between the microorganism supply means and the microorganism sampling means, wherein the microorganism elimination means is arranged inside the wind tunnel.

18. The apparatus for evaluating elimination of microorganisms according to claim 14 or 15, wherein the microorganism elimination means and the microorganism sampling means are arranged outside the vertically downward region of the microorganism supply means.

19. The apparatus for evaluating elimination of microorganisms according to claim 14 or 15, wherein a separate container is arranged outside the container so as to cover the container.

20. An apparatus for evaluating elimination of microorganisms

according to claim 14 or 15, wherein a stirring means for stirring the space inside the container is arranged in the space inside the container.

21. The apparatus for evaluating elimination of microorganisms according to claim 14 or 15, wherein the apparatus is constituted such that supplying microorganisms with the microorganism supply means is done by preparing a solution of microorganisms in dispersion in a mist form and then spraying in a mist form into the space inside the container.

22. The apparatus for evaluating elimination of microorganisms according to claim 14 or 15, wherein the apparatus is constituted such that the particles for the sterilizing treatment of microorganisms are discharged in a form of a gas generated by any of atmospheric electric discharge, atmospheric irradiation of radiation and the Lenard effect.

23. The apparatus for evaluating elimination of microorganisms according to claim 15, wherein the apparatus is constituted such that the particles for the sterilizing treatment of microorganisms are discharged in the form of radiation, X ray, gamma ray and electromagnetic wave.

24. The apparatus for evaluating elimination of microorganisms according to claim 15, wherein the apparatus is constituted such that the microorganism elimination means can irradiate particles of chemicals as the particles for the sterilizing treatment of microorganisms.